

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number:

Luminaire Tested: **ENT-SA1B-740-U-T4FT-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401156 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-740-U-T4FT-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5055.9 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B1 - U5 - G1

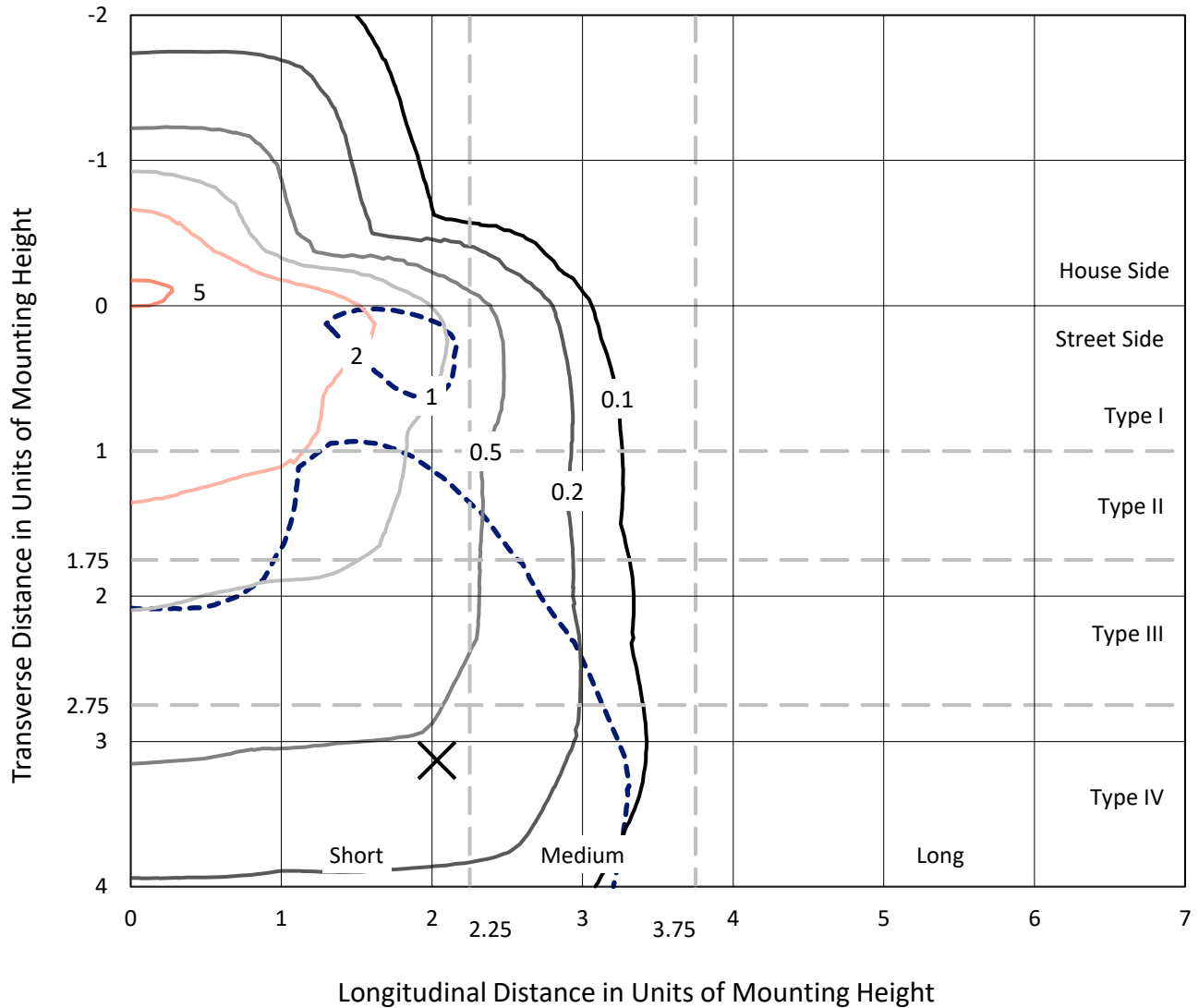
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

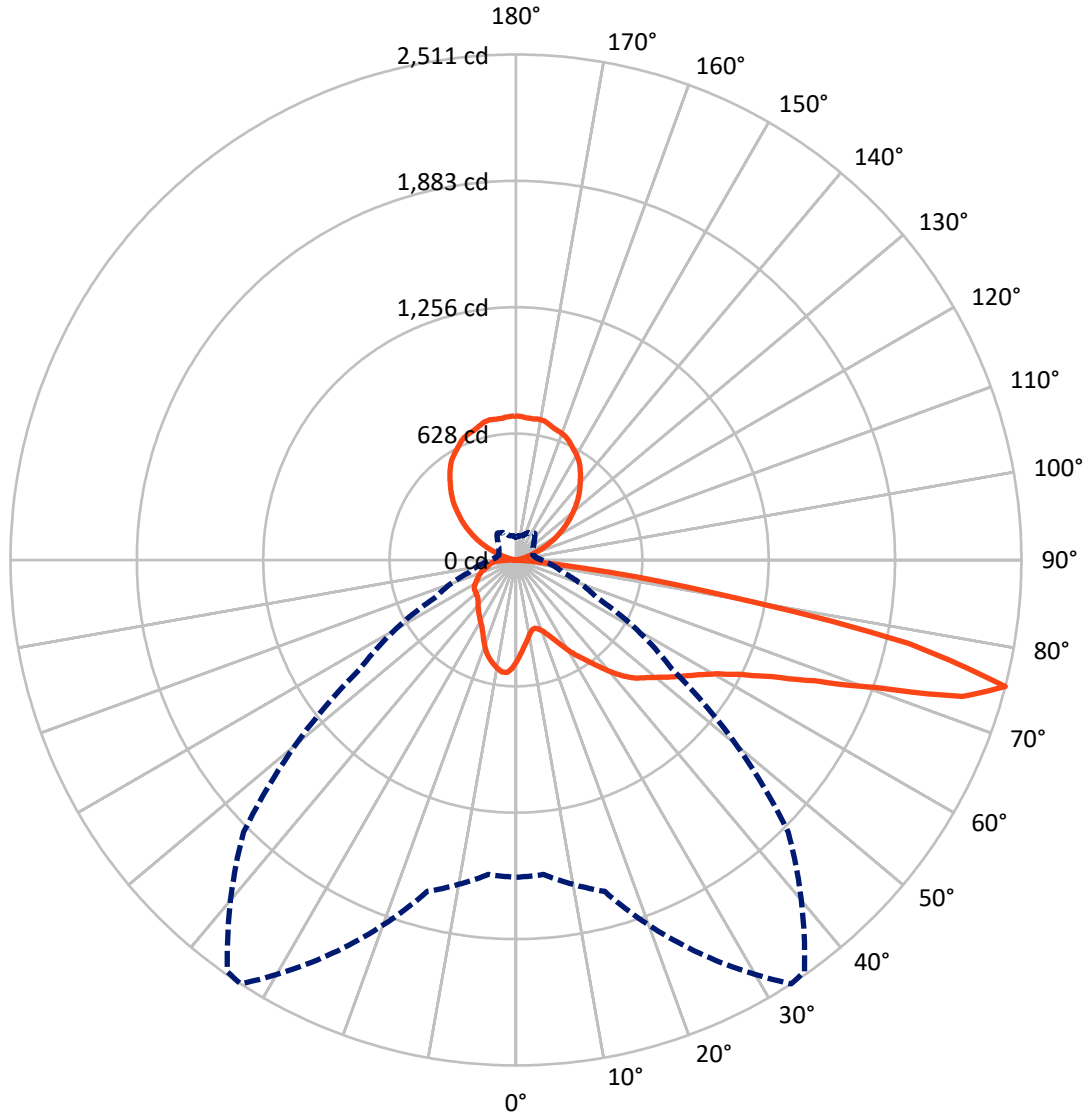
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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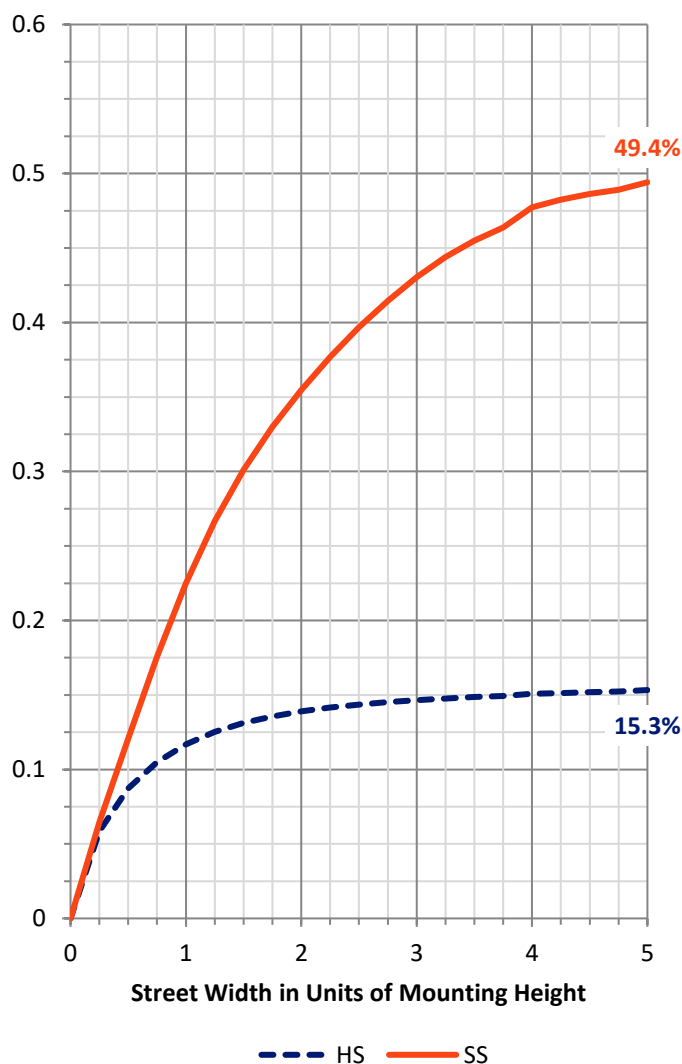
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	797.3	887.0	1684.2
	% Fixture	15.8	17.5	33.3
Street Side	Lumens	2484.7	887.0	3371.7
	% Fixture	49.1	17.5	66.7
Total	Lumens	3282.0	1773.9	5055.9
	% Fixture	64.9	35.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.0	0.9
10°-20°	132.1	2.6
20°-30°	219.7	4.3
30°-40°	327.8	6.5
40°-50°	457.9	9.1
50°-60°	611.2	12.1
60°-70°	757.8	15.0
70°-80°	655.2	13.0
80°-90°	73.2	1.4
90°-100°	8.4	0.2
100°-110°	58.7	1.2
110°-120°	169.9	3.4
120°-130°	279.4	5.5
130°-140°	344.6	6.8
140°-150°	352.5	7.0
150°-160°	297.0	5.9
160°-170°	195.5	3.9
170°-180°	67.8	1.3
0°-90°	3282.0	64.9
0°-180°	5055.9	100.0

Coefficient of Utilization



REPORT NUMBER:

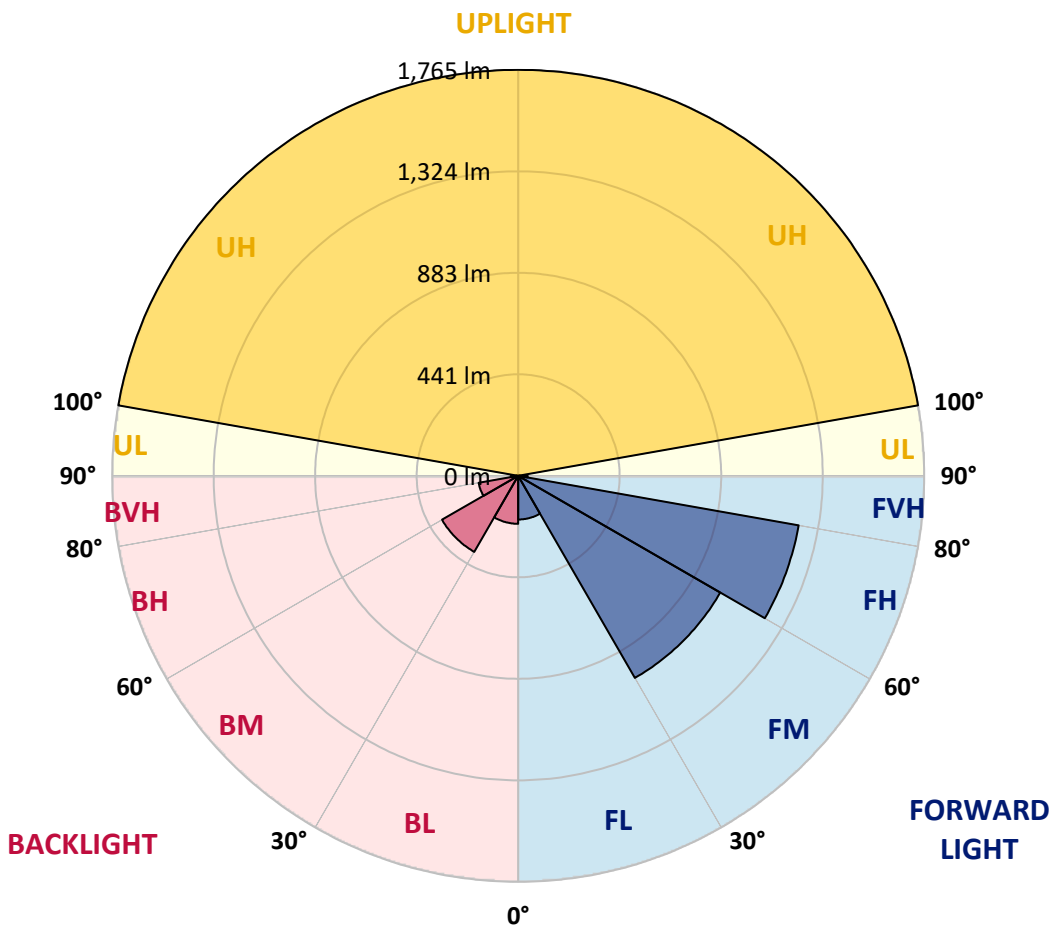
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	190.0	3.8			
FM (30°-60°)	1014.8	20.1			
FH (60°-80°)	1238.5	24.5			G1/1800
FVH (80°-90°)	41.4	0.8			G1/100
BL (0°-30°)	208.8	4.1	B1/500		
BM (30°-60°)	382.0	7.6	B1/1000		
BH (60°-80°)	174.6	3.5	B1/500		G1/500
BVH (80°-90°)	31.9	0.6			G1/100
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	34.9		U5	

BUG Rating: B1-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9
2.5°	456.1	457.1	460.0	463.4	465.4	465.4	470.7	477.1	484.9	491.7	499.0
5°	418.1	419.6	422.0	426.4	431.8	432.7	443.4	454.7	468.8	483.9	498.5
7.5°	380.6	383.5	388.4	394.2	402.5	404.5	419.6	434.7	454.2	477.1	501.0
10°	351.8	353.8	356.2	364.5	374.7	378.2	398.1	417.1	443.9	472.2	503.9
12.5°	344.0	344.0	344.0	347.9	356.2	359.1	380.1	404.5	434.7	468.8	508.3
15°	355.2	354.8	349.4	346.5	351.3	353.8	371.8	395.7	429.8	469.8	516.5
17.5°	380.6	379.1	366.5	356.7	360.1	361.6	373.3	393.7	428.3	473.7	528.7
20°	413.7	410.3	390.8	376.2	375.7	376.7	385.5	399.6	430.8	480.5	541.9
22.5°	457.6	455.6	426.9	404.5	400.6	400.6	404.5	413.2	437.1	488.3	559.9
25°	514.1	508.7	474.1	443.9	435.2	432.7	432.2	432.2	448.3	500.0	582.3
27.5°	572.1	565.8	530.7	489.7	478.0	473.7	465.9	460.0	462.9	512.6	609.1
30°	624.2	615.5	585.7	543.3	525.8	519.0	504.8	492.7	484.9	530.2	644.7
32.5°	653.0	649.6	629.1	590.6	570.6	567.7	544.3	528.2	514.6	553.1	692.5
35°	691.5	687.1	673.9	642.3	618.4	611.1	593.5	574.5	552.6	583.8	752.9
37.5°	727.1	724.6	719.8	697.8	672.5	665.2	649.1	629.1	599.4	629.1	820.6
40°	763.1	760.2	758.2	750.5	732.4	727.5	719.8	696.4	656.4	678.8	887.4
42.5°	815.8	809.4	788.9	788.5	789.9	793.8	794.3	768.5	718.8	740.7	945.9
45°	884.5	866.9	821.1	819.7	836.7	846.9	871.8	849.9	783.6	804.1	1011.2
47.5°	919.5	901.5	854.2	851.3	873.7	888.8	950.2	928.8	850.8	875.2	1078.9
50°	936.6	924.9	883.5	892.7	915.6	930.3	1024.8	1007.8	920.5	952.2	1164.2
52.5°	960.5	941.0	911.8	931.2	965.4	980.5	1091.6	1088.6	979.5	1036.0	1257.7
55°	952.2	942.0	947.3	973.6	1016.5	1038.9	1158.8	1158.8	1039.4	1125.7	1350.3
57.5°	959.0	952.2	996.5	1019.9	1074.0	1106.2	1239.7	1218.3	1090.1	1200.7	1412.7
60°	1017.0	997.5	1032.1	1078.4	1148.1	1179.3	1332.3	1280.6	1131.5	1265.5	1423.9
62.5°	1119.3	1103.8	1107.2	1160.3	1250.4	1286.5	1423.9	1335.7	1159.3	1292.8	1382.0
65°	1288.9	1281.6	1239.7	1271.9	1396.1	1428.8	1538.4	1383.5	1151.5	1272.4	1271.4
67.5°	1517.0	1487.7	1431.2	1460.0	1603.2	1636.4	1676.3	1401.5	1100.8	1150.0	1021.9
70°	1706.1	1681.7	1655.9	1731.4	1896.1	1914.1	1820.1	1384.4	977.5	900.1	685.2
72.5°	1826.4	1808.9	1832.8	2055.0	2318.6	2284.5	1961.9	1265.0	762.6	551.1	342.6
75°	1576.4	1568.2	1704.6	2155.4	2511.1	2498.4	1912.7	946.8	442.5	242.7	155.9
77.5°	792.8	883.0	1026.8	1529.2	1998.0	2000.4	1393.7	455.1	186.2	136.0	107.2
80°	223.2	226.1	342.6	630.6	997.5	1062.8	527.3	154.5	106.2	101.4	79.9
82.5°	53.1	49.2	87.7	186.6	334.8	348.4	158.4	55.6	59.5	63.3	49.2
85°	0.5	0.5	0.5	0.5	0.5	1.0	5.8	5.8	14.1	18.0	14.1
87.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	6.1	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.0	9.2	9.2	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	11.9	12.3	21.5	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	25.8	27.6	40.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	46.6	49.1	64.4	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	71.6	74.7	90.0	97.2	96.2	92.1	89.0
110°	67.5	69.6	75.7	89.0	101.2	104.3	116.6	122.8	123.8	121.7	118.7



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-T4FT-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
112.5°	101.3	101.3	108.4	123.8	134.4	137.1	146.3	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	170.0	171.9	178.0	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	205.6	206.6	209.7	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	241.6	242.4	248.6	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	276.4	277.2	283.4	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	310.8	312.0	317.1	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	345.6	346.8	347.8	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	377.7	378.5	380.5	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	412.7	413.3	414.3	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	444.4	445.0	447.0	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	473.8	474.6	478.7	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	501.9	502.3	508.4	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	532.4	533.0	537.0	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.0	562.6	563.6	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	587.2	588.2	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	606.6	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	623.8	624.0	624.0	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	643.9	644.5	642.4	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.4	660.8	659.8	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.2	670.0	670.0	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	677.0	676.2	678.2	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	689.0	688.4	688.4	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.4	703.8	700.7	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.7	708.9	706.9	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	706.4	705.8	705.8	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	707.7	706.9	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.4	713.0	711.0	709.9	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9
2.5°	502.4	507.3	515.1	521.9	527.8	532.1	539.0	539.9	541.9	542.9	543.8
5°	506.8	516.1	530.7	543.3	552.1	554.6	560.4	559.9	560.4	560.4	559.9
7.5°	512.6	525.3	545.8	559.9	564.8	563.3	561.9	556.5	552.1	550.2	547.7
10°	520.0	534.6	558.5	568.7	566.3	558.5	549.2	539.4	531.7	527.8	526.8
12.5°	527.3	546.3	568.7	571.6	561.9	547.7	532.1	521.4	511.2	505.8	505.8
15°	539.4	560.4	577.0	571.1	553.6	535.6	514.1	499.5	487.8	480.5	480.0
17.5°	554.1	576.5	585.7	568.7	543.3	518.0	492.2	473.2	458.1	450.8	446.4
20°	572.1	593.1	590.1	560.9	528.2	497.1	464.9	442.0	426.4	418.6	417.1
22.5°	592.6	610.1	591.6	548.2	507.8	467.8	432.7	409.8	399.6	393.7	394.2
25°	617.4	631.1	592.1	533.1	478.5	429.3	398.6	387.9	386.4	384.0	385.0
27.5°	648.6	653.0	590.1	512.6	441.0	388.9	370.8	375.2	379.1	377.7	378.6
30°	685.6	679.3	585.7	482.9	394.7	351.8	352.8	362.6	367.9	366.5	366.9
32.5°	729.0	705.6	577.5	446.9	350.9	329.4	337.2	347.0	352.3	352.3	352.8
35°	777.7	737.3	561.4	400.1	320.2	315.8	322.6	330.4	333.8	331.9	333.3
37.5°	828.9	764.6	535.6	347.9	297.3	305.1	309.0	310.9	310.4	307.5	306.0
40°	876.7	786.0	489.3	296.3	278.3	293.8	295.8	290.4	284.1	278.7	275.3
42.5°	913.2	797.2	424.9	258.8	260.2	281.2	282.6	271.9	259.7	251.5	249.5
45°	950.7	801.1	361.1	228.5	240.7	268.5	272.4	257.8	241.2	231.5	230.0
47.5°	993.6	810.9	298.2	207.6	224.2	259.7	266.1	248.0	229.5	214.9	212.5
50°	1051.1	829.4	251.0	191.5	212.5	255.3	264.1	240.2	216.9	200.8	198.8
52.5°	1124.2	856.7	207.1	178.8	203.2	248.5	261.2	232.4	207.6	188.1	185.2
55°	1187.1	866.9	178.8	168.1	193.5	240.2	258.8	229.5	197.4	175.4	172.0
57.5°	1215.8	837.7	158.9	157.4	183.2	230.0	253.9	219.8	186.2	169.1	166.2
60°	1202.7	765.1	143.8	147.7	171.5	216.9	241.2	210.0	178.4	164.2	161.3
62.5°	1144.2	681.3	132.5	138.4	158.4	200.3	226.6	201.3	171.5	158.9	155.0
65°	1041.4	589.2	124.3	130.1	146.7	184.2	214.9	191.0	163.7	151.1	147.7
67.5°	849.9	468.8	115.5	121.8	136.9	171.0	204.2	182.7	155.0	146.7	143.8
70°	562.4	315.3	107.2	113.5	127.2	158.4	193.0	174.0	146.7	141.3	137.4
72.5°	258.3	169.6	98.4	104.8	116.0	144.2	178.8	160.8	135.5	132.1	126.2
75°	127.7	104.3	87.7	93.6	102.3	127.2	162.3	149.6	125.2	119.4	112.6
77.5°	93.1	78.0	75.5	81.4	88.7	112.6	144.7	137.9	115.0	106.7	102.8
80°	69.2	60.4	63.3	69.2	76.0	101.8	135.5	129.1	106.2	97.9	95.0
82.5°	42.4	40.4	48.7	55.6	63.8	93.6	129.1	117.9	95.5	87.7	84.3
85°	12.2	14.6	24.9	36.1	45.3	75.5	120.4	103.3	80.4	67.2	64.8
87.5°	0.0	1.5	7.8	16.6	26.8	50.2	92.6	80.9	61.4	49.7	47.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-T4FT-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)